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Claim Chart for References Submitted in 2nd Information Disclosure Statement for 10/766,488

Claim Chart for Claim 61 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, a fiber optic module comprising a circuit board to carry thereon a connector, a laser diode driver, a laser diode module and a photo diode module.
A7	USP4,912,521	A7 through A8 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, a fiber optic module comprising a circuit board to carry thereon a connector, a laser diode driver, a laser diode module and a photo diode module.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
B4	USP5,280,191	

B5	USP5,289,345	B5 does not disclose, at least, a fiber optic module comprising a circuit board to carry thereon a connector, a laser diode driver, a laser diode module and a photo diode module.
B6	USP5,325,454	B6 through B10 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 through B13 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants

C10	JP7-225327	have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, a fiber optic module comprising a laser diode module to convert a laser diode electric signal to a laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.

Claim Chart for Claims 62-65 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
A2	USP4,553,813	A2 through A4 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
A6	USP4,911,519	A6 does not disclose, at least, a fiber optic module comprising a circuit board to carry thereon a connector, a laser diode driver, a laser diode module, a photo diode module and a semiconductor integrated circuit.
A7	USP4,912,521	A7 through A8 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
A10	USP4,969,924	A10 and A11 do not disclose, at least, a fiber optic module comprising a circuit board to carry thereon a connector, a laser diode driver, a laser diode
A11	USP4,979,787	

		module, a photo diode module and a semiconductor integrated circuit.
A12	USP5,013,247	A12 through A16 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, a fiber optic module comprising a circuit board to carry thereon a connector, a laser diode driver, a laser diode module, a photo diode module and a semiconductor integrated circuit.
B6	USP5,325,454	B6 through B10 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25,

		1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board to a laser diode electric signal for a laser diode.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, a fiber optic module comprising a laser diode module including a laser diode, to convert a laser diode electric signal to a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber connected with said laser diode module, said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a fiber optic module comprising a laser diode driver to convert serial data received from a mother board through a connector to a laser diode electric signal for a laser diode.

Claim Chart for Claims 69-105 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
A2	USP4,553,813	A2 through A4 do not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
A6	USP4,911,519	A6 does not disclose, at least, a fiber optic module comprising a sole circuit board to mount thereon a connector, a laser diode module, a laser diode driver, and a photo diode module.
A7	USP4,912,521	A7 and A8 do not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
A10	USP4,969,924	A10 and A11 not disclose, at least, a fiber optic module comprising a sole circuit board to mount thereon a connector, a laser diode module, a laser diode driver, and a photo diode module.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, a fiber optic

B2	USP5,202,943	module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
B3	USP5,243,678	B3 and B4 do not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, a fiber optic module comprising a sole circuit board to mount thereon a connector, a laser diode module, a laser diode driver, and a photo diode module.
B6	USP5,325,454	B6 through B10 do not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one
C2	USP4,727,248	

		optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, a fiber optic module comprising a laser diode module having an opening adapted for insertion of one of at least one optical fiber, said laser diode module adapted to output a laser diode optical signal to the at least one optical fiber.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a fiber optic module comprising a laser diode driver to drive a laser diode module according to serial data received from a computer through a connector.

Claim Chart for Claims 106-121 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a mother board, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a mother board, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received
A13	USP5,039,194	
A14	USP5,047,835	

A15	USP5,099,307	from a mother board, into a laser diode electrical signal.
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a mother board, into a laser diode electrical signal.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a mother board, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a mother board, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
B16	USP5,561,727	This reference does not qualify as prior art.

		Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a mother board, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode module being electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical
D6	IBM Opto-Electronics Enterprise, RCL-	

	2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	signal, which is transmitted at a data transmission rate of 1000Mbits/s or more.
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, an optical module comprising a serial connector being positioned proximate to a second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claims 122-127 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 through A16 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
A2	USP4,553,813	
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	
A6	USP4,911,519	
A7	USP4,912,521	
A8	USP4,913,511	
A9	USP4,945,229	
A10	USP4,969,924	
A11	USP4,979,787	
A12	USP5,013,247	
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 through B10 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
B2	USP5,202,943	
B3	USP5,243,678	
B4	USP5,280,191	
B5	USP5,289,345	
B6	USP5,325,454	
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art.

		Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

		prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D8 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that foreign matter is prevented from invading into a first opening of the laser diode module and a second opening of the photo diode module when the module cap is removably attached to an optical module.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	

Claim Chart for Claims 128-138 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a sole circuit board to mount thereon a surface mount type connector, a laser diode driver, a laser diode module, a photo diode module and a semiconductor integrated circuit.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a sole circuit board to mount thereon a surface mount type connector, a laser diode driver, a laser diode module, a photo diode module and a semiconductor integrated circuit.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode driver to
A13	USP5,039,194	

A14	USP5,047,835	convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a sole circuit board to mount thereon a surface mount type connector, a laser diode driver, a laser diode module, a photo diode module and a semiconductor integrated circuit.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 through B13 do not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode

		optical signal having a data transmission rate of 1000 Mbits/s or more.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module including said laser diode, to convert said laser diode electrical signal into a laser diode optical signal, said laser diode optical signal adapted for transmission to an optical fiber said laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module including a laser diode, to convert a laser diode electrical signal into a laser diode optical signal, which adapted for transmission to an optical fiber the laser diode optical signal having a data transmission rate of 1000 Mbits/s or more.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, an optical module comprising a laser diode driver to convert serial data received through a surface mount type connector to a laser diode electrical signal for a laser diode.

Claim Chart for Claims 139-157 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board, on which a laser diode electrical signal converter are mounted and to which a laser diode module and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board, on which a laser diode electrical signal converter are mounted and to which a laser diode module and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical

B2	USP5,202,943	module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board, on which a laser diode electrical signal converter are mounted and to which a laser diode module and a photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert
C2	USP4,727,248	

		a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, which a serial connector transfers, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode module being electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to a second edge of a circuit board that is opposite a first edge of the

		circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claims 158 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 through A16 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
A2	USP4,553,813	
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	
A6	USP4,911,519	
A7	USP4,912,521	
A8	USP4,913,511	
A9	USP4,945,229	
A10	USP4,969,924	
A11	USP4,979,787	
A12	USP5,013,247	
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 through B10 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
B2	USP5,202,943	
B3	USP5,243,678	
B4	USP5,280,191	
B5	USP5,289,345	
B6	USP5,325,454	
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

B15	USP5,550,941	B15 does not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D8 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, and being removably attachable to an optical module.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	

Claim Chart for Claims 159-162 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 through A16 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
A2	USP4,553,813	
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	
A6	USP4,911,519	
A7	USP4,912,521	
A8	USP4,913,511	
A9	USP4,945,229	
A10	USP4,969,924	
A11	USP4,979,787	
A12	USP5,013,247	
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 through B10 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
B2	USP5,202,943	
B3	USP5,243,678	
B4	USP5,280,191	
B5	USP5,289,345	
B6	USP5,325,454	
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art.

		Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D8 do not disclose, at least, a module cap comprising a first elastic part to protect a laser diode module and a second elastic part to protect a photo diode module, such that the first elastic part and the second elastic part protect the laser diode module and the photo diode module from foreign matter when the module cap is removably attached to an optical module.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	

Claim Chart for Claims 163-165 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a serial connector to transfer serial data.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a serial connector to transfer serial data.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a serial connector to
A13	USP5,039,194	

A14	USP5,047,835	transfer serial data.
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a serial connector to transfer serial data.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a serial connector to transfer serial data.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a serial connector to transfer serial data.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclosed, at least, an optical module comprising a laser diode.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan..

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a serial connector to transfer serial data.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode and a photo diode module electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to and in parallel with.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode driver to covert serial data, which a serial connector transfers, into a laser diode electrical signal and to drive a laser diode according to the laser diode electrical signal, producing a laser diode optical signal such that the laser diode transmits the laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to and in parallel with a second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claims 166-168 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board, on which a serial connector and a laser diode electrical signal converter are mounted and to which a laser diode and a photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)

C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode module are electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to and in parallel with.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module comprising a laser diode to produce and transmit a laser diode optical signal based on a laser diode electrical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to and in parallel with a

		second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claim 170 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector, a laser diode electrical signal converter and an integrated circuit are mounted and to which a laser diode module and a phone diode are electrically connected.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board on which a serial connector, a laser diode electrical signal converter and an integrated circuit are mounted and to which a laser diode module and a phone diode are electrically connected.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector, a laser diode electrical signal converter and an integrated circuit are mounted and to which a laser diode module and a phone diode are electrically connected.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125,	

	1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to and in parallel with a second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claim 171 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector, a laser diode electrical signal converter and an integrated circuit are mounted and to which a laser diode module and a phone diode are electrically connected.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board on which a serial connector, a laser diode electrical signal converter and an integrated circuit are mounted and to which a laser diode module and a phone diode are electrically connected.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B2	USP5,202,943	
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector, a laser diode electrical signal converter and an integrated circuit are mounted and to which a laser diode module and a phone diode are electrically connected.
B6	USP5,325,454	B7 through B9 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal, which is transmitted at a data transmission rate of 1000 Mbits/s or more.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125,	

	1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to and in parallel with a second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claims 172-175 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical

B2	USP5,202,943	module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode
C2	USP4,727,248	

		optical signal and transmit the laser diode optical signal.
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, a diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode module electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to and in parallel with a second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claims 176-177 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical

B2	USP5,202,943	module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode
C2	USP4,727,248	

		optical signal and transmit the laser diode optical signal.
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, a plurality of pins to mount a optical module to a motherboard are fixed to a frame.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.

Claim Chart for Claims 178-179 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and a photo diode module are electrically connected proximate to a first edge of the circuit board.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical

B2	USP5,202,943	module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and a photo diode module are electrically connected proximate to a first edge of the circuit board.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode
C2	USP4,727,248	

		optical signal and transmit the laser diode optical signal.
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode module and a photo diode module electrically connected to a circuit board proximate to a first edge of the circuit board that is opposite a second edge of the circuit board, which a serial connector is positioned proximate to.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, a serial connector being positioned proximate to and in parallel with a second edge of a circuit board that is opposite a first edge of the circuit board, which a laser diode module and a photo diode module are electrically connected to the circuit board proximate to.

Claim Chart for Claims 180-181 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A2	USP4,553,813	A2 through A4 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	A5 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A6	USP4,911,519	A6 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and a photo diode module are electrically connected.
A7	USP4,912,521	A7 and A8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A8	USP4,913,511	
A9	USP4,945,229	A9 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
A10	USP4,969,924	A10 and A11 do not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and a photo diode module are electrically connected.
A11	USP4,979,787	
A12	USP5,013,247	A12 through A16 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 and B2 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a
B2	USP5,202,943	

		serial connector, into a laser diode electrical signal.
B3	USP5,243,678	B3 and B4 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B4	USP5,280,191	
B5	USP5,289,345	B5 does not disclose, at least, an optical module comprising a single circuit board on which a serial connector and a laser diode electrical signal converter are mounted, and to which a laser diode module and a photo diode module are electrically connected.
B6	USP5,325,454	B6 through B10 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art.

		Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D3 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	D4 does not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	D5 through D7 do not disclose, at least, an optical module comprising a laser diode module to convert a laser diode electrical signal into a laser diode optical signal and transmit the laser diode optical signal.
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	D8 does not disclose, at least, an optical module comprising a laser diode electrical signal converter to convert serial data, received from a serial connector, into a laser diode electrical signal.

Claim Chart for Claims 182-183 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 through A16 do not disclose, at least, a module cap comprising a first cap portion and a second cap portion to protect a laser diode module and a photo
A2	USP4,553,813	
A3	USP4,612,670	

A4	USP4,625,333	diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
A5	USP4,737,008	
A6	USP4,911,519	
A7	USP4,912,521	
A8	USP4,913,511	
A9	USP4,945,229	
A10	USP4,969,924	
A11	USP4,979,787	
A12	USP5,013,247	
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 through B10 do not disclose, at least, a module cap comprising a first cap portion and a second cap portion to protect a laser diode module and a photo diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
B2	USP5,202,943	
B3	USP5,243,678	
B4	USP5,280,191	
B5	USP5,289,345	
B6	USP5,325,454	
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a module cap comprising a first cap portion and a second cap portion to protect a laser diode module and a photo diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a module cap

		comprising a first cap portion and a second cap portion to protect a laser diode module and a photo diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a module cap comprising a first cap portion and a second cap portion to protect a laser diode module and a photo diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a module cap comprising a first cap portion and a second cap portion to protect a laser diode module and a photo diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)

D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D8 do not disclose, at least, a module cap comprising a first cap portion and a second cap portion to protect a laser diode module and a photo diode module of an optical module, respectively, such that the first cap portion and the second cap portion are each formed having a cavity with a projection formed therein, and into each of the cavities one of a laser diode module and a photo diode module is at least partially inserted when the module cap is attached to the optical module.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	

Claim Chart for Claim 184 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 through A16 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
A2	USP4,553,813	
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	
A6	USP4,911,519	
A7	USP4,912,521	
A8	USP4,913,511	
A9	USP4,945,229	
A10	USP4,969,924	
A11	USP4,979,787	
A12	USP5,013,247	
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 through B10 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
B2	USP5,202,943	
B3	USP5,243,678	
B4	USP5,280,191	
B5	USP5,289,345	
B6	USP5,325,454	
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art.

		Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D8 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity, such that the module cap is formed having the laser diode cavity into which a laser diode module is at least partially inserted and the photo diode cavity into which a photo diode module is at least partially inserted.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	

Claim Chart for Claim 185 of 10/766,488

Ref	Title	Distinction between reference(s) and claim(s)
A1	USP4,432,604	A1 through A16 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
A2	USP4,553,813	
A3	USP4,612,670	
A4	USP4,625,333	
A5	USP4,737,008	
A6	USP4,911,519	
A7	USP4,912,521	
A8	USP4,913,511	
A9	USP4,945,229	
A10	USP4,969,924	
A11	USP4,979,787	
A12	USP5,013,247	
A13	USP5,039,194	
A14	USP5,047,835	
A15	USP5,099,307	
A16	USP5,113,466	

Ref	Title	Distinction between reference(s) and claim(s)
B1	USP5,127,071	B1 through B10 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
B2	USP5,202,943	
B3	USP5,243,678	
B4	USP5,280,191	
B5	USP5,289,345	
B6	USP5,325,454	
B7	USP5,325,455	
B8	USP5,337,398	
B9	USP5,432,630	
B10	USP5,452,388	
B11	USP5,475,783	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B12	USP5,515,468	B12 and B13 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
B13	USP5,526,160	
B14	USP5,535,034	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
B15	USP5,550,941	B15 does not disclose, at least, a module cap

		comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
B16	USP5,561,727	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.

Ref	Title	Distinction between reference(s) and claim(s)
C1	USP5,604,831	C1 and C2 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
C2	USP4,727,248	
C3	USP5,528,408	This reference does not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C4	USP5,276,756	C4 through C8 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
C5	USP5,376,182	
C6	USP5,422,972	
C7	USP5,644,668	
C8	USP5,993,074	
C9	USP5,561,727	C9-C11 do not qualify as prior art. Applicants have claimed priority to Japanese Application No. 06-086691, filed on April 25, 1994, in Japan.
C10	JP7-225327	
C11	JP7-225328	

Ref	Title	Distinction between reference(s) and claim(s)
D1	Hewlett-Packard, Optoelectronics Designer's Catalog, 1990.	D1 through D8 do not disclose, at least, a module cap comprising a laser diode projection formed in a laser diode cavity and a photo diode projection formed in a photo diode cavity.
D2	Sumitomo Electric Fiber Optics Corp., Product Bulletin, FDDI Optical Transceiver, ES-9217-XC, publication date unknown.	
D3	Sumitomo Electric, Technical Specification for FDDI Optical Transceiver Module, ES-9217-XC, SC Duplex FDDI PMD, ES-9210-XC, SC Duplex LCF PMD, March 25, 1993.	
D4	Proposal for Multi-Chip Integration submitted to the Advanced Research Projects Agency dated May 11, 1993, publication date unknown.	
D5	Thomas & Betts, INFO-LAN Fiber Optic Map Network (IEEE 802.4) Users Manual, August 1988.	
D6	IBM Opto-Electronics Enterprise, RCL-2000 LCF-PMD FDDI, Preliminary	

	Specifications, Jan. 7, 1993.	
D7	Hewlett-Packard, FDDI 1300nm Transceiver, Technical Data, HFBR-5125, 1991.	
D8	Daniel J. Wasser, Optical Datalinks, AT&T Technical Journal, p.46-52, January/February, 1992	

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